

AMENDMENTS TO THE CLAIMS

Please amend claim 1, delete claims 24-26, 35 and 36, add claims 42-46 as set forth below. This listing replaces the prior listing of claims.

1. (Currently Amended) A method for allocating time slots to channels in a time division multiplexed network in which a bitstream divided into frames is propagating, wherein a recurrent frame thereof [of the network] is divided into time slots, and in which circuit-switched channels are allocated respective sets of time slots in said recurrent frame of said network, said method comprising the steps of:
 - allocating a set of time slots to a circuit-switched first channel;
 - associating the allocated set of time slots to said first channel with a first level of priority;
 - receiving a request for time slots for a circuit-switched second channel associated with a second level of priority;
 - comparing said first and second levels of priority, and
 - determining whether or not to deallocate time slots from said first channel, and allocate the deallocated time slots to said second channel, based upon said comparison.
2. (Previously Amended) A method as claimed in claim 1, wherein said determining step comprises determining to deallocate time slots from said first channel if said second level of priority is higher than said first level of priority.
3. (Previously Amended) A method as claimed in claim 1, wherein said second level of priority is identified in said request.
4. (Previously Amended) A method as claimed in claim 1, wherein said step of determining to deallocate time slots from said first channel is performed only if there are insufficient non-allocated slots available to satisfy said request.
5. (Previously Amended) A method as claimed in claim 1, wherein said step of determining whether or not to deallocate time slots from said first channel is performed only if the first level or priority is lower than a highest level of priority.

6. (Previously Amended) A method as claimed in claim 1, wherein said step of determining whether or not to deallocate time slots from said first channel is further based upon an evaluation regarding to which channel a time slot was last allocated.
7. (Previously Amended) A method as claimed in claim 1, wherein said step of determining to deallocate time slots from said first channel is further based upon an evaluation regarding to which channel a time slot has been allocated the longest period of time.
8. (Previously Amended) A method as claimed in claim 1, wherein said step of determining whether or not to deallocate time slots from said first channel is further based upon an evaluation regarding from which channel a time slot was last deallocated.
9. (Canceled)
10. (Previously Amended) A method as claimed in claim 1, wherein said associating step comprises associating the allocation of all time slots allocated to said first channel with the same level of priority.
11. (Previously Amended) A method as claimed in claim 1, wherein said associating step comprises associating said first channel with said first level of priority, thereby associating the allocation of each time slot allocated to said first channel with the same level of priority.
12. (Previously Amended) A method as claimed in claim 1, wherein said associating step comprises associating the allocation of different time slots allocated to said first channel with different levels of priority and wherein said determining step comprises to deallocate from said first channel, and allocated to said second channel, only such time slots that have been allocated to said first channel with a level of priority that are lower than said second level of priority.
13. (Previously Amended) A method as claimed in claim 1, wherein said associating step comprises associating the allocation of time slots allocated to said first channel over a first

portion of said network with one level of priority and associating the allocation of time slots allocated to said first channel over another portion of said network with another selected level of priority.

14. (Previously Amended) A method as claimed in claim 1, wherein said associating step comprises changing the level of priority associated with the allocation of time slots to said first channel as a consequence of changing bandwidth requirements.

15. (Previously Amended) A method as claimed in claim 1, comprising the step of determining the priority by which said first and second channels are to be re-established in case of channel failure based upon their respective levels of priority.

16. (Previously Amended) A method as claimed in claim 1, comprising the step of determining a degree of redundancy requested for the channels based upon their respective levels of priority.

17. (Previously Amended) A method as claimed in claim 1, wherein said channels carry traffic, comprising selecting said levels of priority based upon the identity of a physical or virtual port or interface to/from which traffic pertaining to the respective channel is delivered.

18. (Previously Amended) A method as claimed in claim 1, wherein said channels carry traffic, comprising selecting said levels of priority based upon an identification of the type of application that traffic to be transported in the respective channel pertains to.

19. (Canceled)

20. (Previously Amended) A method as claimed in claim 1, comprising transmitting information on said level of priority associated with the allocation of a set of time slots to the first channel to one or more other nodes of the network in order for said other nodes to be able to switch said first channel taking said level of priority into consideration.

21. (Previously Amended) A method for allocating time slots in a time division multiplexed network in which a recurrent frame of the network is divided into time slots and

in which circuit-switched channels are established to comprise respective sets of time slots in said recurrent frame of said network, said method comprising the steps of:

specifying levels of priority associated with the allocation of time slots to respective established channels;

receiving a request for time slots for a circuit-switched channel in need of bandwidth, said request being associated with a requested level of priority;

determining if there are slots available that are not allocated to any other channel and, if so, allocating such time slots to said circuit switched channel; and, if the amount of time slots so allocated to said circuit-switched channel is insufficient to meet the request; determining if there are time slots allocated to said established channels at a level of priority that is deemed lower than the requested level of priority and, if so, deallocating such time slots from such established channels and allocate so deallocated time slots to said circuit switched channel.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

LAW OFFICES OF
MacPherson, Kwok, Chen &
Heid LLP

1762 Technology Drive
Suite 226
San Jose, CA 95110
(408)-392-9520
FAX (408)-392-9262

32. (Canceled)

33. (Previously Presented) Use of a method as claimed in claim 1, for specifying different traffic service classes based upon said priority levels when operating a communication network.

34. (Previously Presented) Use of a method as claimed in claim 1, for providing channel prioritization based upon said priority levels when interconnecting ports of a data switching or routing apparatus.

35. (Canceled)

36. (Canceled)

37. (Previously Presented) A method as claimed in claim 1, wherein said method is performed at a node of the network and wherein said request is received from another node of the network.

38. (Previously Presented) A method as claimed in claim 1, wherein said method is performed at a node of the network and wherein said request is received from a user connected to said node.

39. (Previously Presented) A method as claimed in claim 1, wherein said request is a request for more bandwidth to an already established channel.

40. (Previously Presented) A method as claimed in claim 1, comprising the step of re-establishing said channels in case of channel failure in a highest level of priority of first order.

41. (Previously Presented) A method as claimed in claim 1, comprising defining the level of priority for the allocation of time slots to one or more of said channels so that a higher level of priority is assigned for allocation of time slots to channels carrying traffic pertaining to

real-time applications, such as voice or video applications, whereas a lower level of priority is assigned for allocation of time slots to channels carrying bursty data traffic.

42. (New) In a node of a network comprising a plurality of nodes, a method for allocating time slots to channels in a time division multiplexed network in which a bitstream divided into frames is propagating, wherein a recurrent frame thereof is divided into time slots, and in which circuit-switched channels are allocated respective sets of time slots in said recurrent frame of said network, said method comprising the steps of:

allocating a set of time slots to a circuit-switched first channel;

associating the allocated set of time slots to said first channel with a first level of priority;

receiving, from one of an end user and another node, a request for time slots for a circuit-switched second channel associated with a second level of priority;

comparing said first and second levels of priority; and

determining, based upon said comparison, whether or not to deallocate time slots from said first channel, and, if it is determined to deallocate slots from said first channel, allocate the deallocated time slots to said second channel.

43. (New) A method as claimed in claim 42, wherein said determining step comprises determining to deallocate time slots from said first channel if said second level of priority is higher than said first level of priority.

44. (New) A method as claimed in claim 42, wherein said second level of priority is identified in said request.

45. (New) A method as claimed in claim 42, wherein said step of determining to deallocate time slots from said first channel is performed only if there are insufficient non-allocated slots available to satisfy said request.

46. (New) In a node of a network comprising a plurality of nodes, a method for allocating time slots to channels in a time division multiplexed network in which a bitstream divided into frames is propagating, wherein a recurrent frame thereof is divided into time slots, and in which circuit-switched channels are allocated respective sets of time slots in said recurrent frame of said network, said method comprising the steps of:

allocating a set of time slots to a circuit-switched first channel;

associating the allocated set of time slots to said first channel with a first level of priority;

receiving, from one of an end user and another node, a request for time slots for a circuit-switched second channel associated with a second level of priority;

checking whether or not there are any free time slots available, and if there are free time slots, allocate the free time slots to said second channel;

if there are no free time slots available, checking whether or not there are any time slots associated with a lower priority than said second priority, and if there are such lower priority time slots, allocate the lower priority time slots to said second channel;

if there are no lower priority time slots performing one of rejecting said request and sending said request to another node of the network.